

CLAIMS

- 1 1. Apparatus for managing a software component update on a computer system
2 with a memory in response to an update request, the apparatus comprising:
3 a component manager that receives the request, and has a parser that
4 extracts from the request URL information which identifies the location of a file
5 containing the software component resources for satisfying the request;
6 a download manager that receives the URL information from the
7 component manager and has a file retriever which asynchronously retrieves the
8 file from the specified location, places the file in a staging area in the memory
9 and notifies the component manager; and
10 an install manager that is instructed by the component manager to
11 asynchronously install the file in the staging area.
- 12 2. The apparatus of claim 1 wherein the file contains an OSD description of the
13 software component resources.
- 14 3. The apparatus of claim 1 wherein the component manager comprises a security
15 section that validates the file before installation.
- 16 4. The apparatus of claim 1 further comprising a manifest which contains a list of all
17 software components installed on the computer system.
- 18 5. The apparatus of claim 4 wherein the component manager comprises a
19 mechanism that responds to the request by checking the manifest to ascertain
20 whether the requested software component is already installed on the computer
21 system.

- 1 6. The apparatus of claim 1 wherein the component manager comprising a polling
2 mechanism that periodically polls component locations to locate new component
3 versions.
- 1 7. The apparatus of claim 1 wherein the software components include system
2 components that are required for operation of the apparatus and application
3 components that are not required for operation of the apparatus and wherein the
4 apparatus further comprises a system component manager that receives
5 requests for system components and a system component installer that is started
6 by the system component manger.
- 1 8. The apparatus of claim 7 wherein the system component installer comprises a
2 system controller that shuts the system component manager down before
3 installing in-use components.
- 1 9. The apparatus of claim 8 wherein the system controller comprises a mechanism
2 for restarting the system component manager after system components have
3 been installed.
- 1 10. The apparatus of claim 1 wherein the component manager comprises an
2 activation factory for activating installed software components.
- 1 11. A method for managing a software component update on a computer system
2 with a memory in response to an update request, the method comprising:
3 (a) parsing the request to extract from the request URL information which
4 identifies the location of a file containing the software component
5 resources for satisfying the request;

- 6 (b) using the URL information to asynchronously retrieve the file from the
7 specified location;
- 8 (c) places the file in a staging area in the memory; and
- 9 (d) asynchronously installing the file in the staging area.
- 1 12. The method of claim 11 wherein the file contains an OSD description of the
2 software component resources.
- 1 13. The method of claim 11 wherein step (c) comprises validating the file before
2 installation.
- 1 14. The method of claim 11 further comprising:
2 (e) listing all software components installed on the computer system in a
3 manifest.
- 1 15. The method of claim 14 wherein step (b) comprises checking the manifest to
2 ascertain whether the requested software component is already installed on the
3 computer system before retrieving the file.
- 1 16. The method of claim 11 further comprising:
2 (f) periodically polling component locations to locate new component
3 versions.
- 1 17. The method of claim 11 wherein the software components include system
2 components that are required for operation of the apparatus and application
3 components that are not required for operation of the apparatus and wherein the
4 method further comprises:

5 (g) installing system components with a separate system component
6 manager that receives requests for system components and a separate
7 system component installer that is started by the system component
8 manger.

1 18. The method of claim 17 wherein step (g) comprises shutting the system
2 component manager down before installing in-use components.

1 19. The method of claim 18 wherein step (g) further comprises restarting the system
2 component manager after system components have been installed.

1 20. The method of claim 11 further comprising:
2 (h) activating installed software components with an activation factory.

1 21. A computer program product for managing a software component update on a
2 computer system with a memory in response to an update request, the computer
3 program product comprising a computer usable medium having computer
4 readable program code thereon, including:

5 program code that parses the request to extract from the request URL
6 information which identifies the location of a file containing the software
7 component resources for satisfying the request;

8 program code that uses the URL information to asynchronously retrieve
9 the file from the specified location;

10 program code that places the file in a staging area in the memory; and

11 program code that asynchronously installs the file in the staging area.

1 22. The computer program product of claim 21 wherein the file contains an OSD
2 description of the software component resources.

- 1 23. The computer program product of claim 21 wherein the program code that places
2 the file in a staging area in the memory comprises program code that validates
3 the file before installation.
- 1 24. The computer program product of claim 21 further comprising program code for
2 listing all software components installed on the computer system in a manifest.
- 1 25. The computer program product of claim 24 wherein the program code that uses
2 the URL information to asynchronously retrieve the file from the specified location
3 comprises program code that checks the manifest to ascertain whether the
4 requested software component is already installed on the computer system
5 before retrieving the file.
- 6 26. The computer program product of claim 21 further comprising program code that
7 periodically polls component locations to locate new component versions.
- 1 27. The computer program product of claim 21 wherein the software components
2 include system components that are required for operation of the apparatus and
3 application components that are not required for operation of the apparatus and
4 wherein the computer program product further comprises program code that
5 installs system components with a separate system component manager that
6 receives requests for system components and a separate system component
7 installer that is started by the system component manger.
- 1 28. The computer program product of claim 27 wherein the program code that
2 installs system components with a separate system component manager and a

3 separate system component installer comprises program code that shuts the
4 system component manager down before installing in-use components.

1 29. The computer program product of claim 28 wherein the program code that
2 installs system components with a separate system component manager and a
3 separate system component installer further comprises program code that
4 restarts the system component manager after system components have been
5 installed.

1 30. The computer program product of claim 21 further comprising program code that
2 activates installed software components with an activation factory.

1 31. A computer data signal embodied in a carrier wave for managing a software
2 component update on a computer system with a memory in response to an
3 update request, the computer data signal comprising:

4 program code that parses the request to extract from the request URL
5 information which identifies the location of a file containing the software
6 component resources for satisfying the request;

7 program code that uses the URL information to asynchronously retrieve
8 the file from the specified location;

9 program code that places the file in a staging area in the memory; and

10 program code that asynchronously installs the file in the staging area.

1 32. Apparatus for managing a software component update on a computer system
2 with a memory in response to an update request, the apparatus comprising:

3 means responsive to the request, for parsing the request to extract from
4 the request URL information which identifies the location of a file containing the
5 software component resources for satisfying the request;

6 means for receiving the URL information from the component manager
7 and asynchronously retrieving the file from the specified location, placing the file
8 in a staging area in the memory and notifying the parsing means; and
9 means cooperating with the parsing means for asynchronously installing
10 the file in the staging area.

1 33. The apparatus of claim 32 wherein the file contains an OSD description of the
2 software component resources.

1 34. The apparatus of claim 32 wherein the parsing means comprises means for
2 validating the file before installation.

1 35. The apparatus of claim 32 further comprising a manifest which contains a list of
2 all software components installed on the computer system.

1 36. The apparatus of claim 35 wherein the parsing means comprises means
2 responsive to the request for checking the manifest to ascertain whether the
3 requested software component is already installed on the computer system.

1 37. The apparatus of claim 32 wherein the parsing means comprises means for
2 periodically polling component locations to locate new component versions.

1 38. The apparatus of claim 32 wherein the software components include system
2 components that are required for operation of the apparatus and application
3 components that are not required for operation of the apparatus and wherein the
4 apparatus further comprises a system component manager that receives
5 requests for system components and a system component installer that is started
6 by the system component manger.

- 1 39. The apparatus of claim 38 wherein the system component installer comprises
2 means for shutting the system component manager down before installing in-use
3 components.
- 1 40. The apparatus of claim 39 wherein the system controller comprises means for
2 restarting the system component manager after system components have been
3 installed.
- 1 41. The apparatus of claim 32 wherein the parsing means comprises means for
2 activating installed software components.